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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/059,578 | 01/29/2002 | Klas Goran Eriksson | 8036-1003 | 7969 |
| 7590 | 02/17/2004 | | EXAMINER | |
| Howard B. Rockman Lee, Mann, Smith, McWilliams, Sweeney & Ohlson P.O.Box 2786 Chicago, IL 60690-2786 | | | PUNNOOSE, ROY M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2877 | |

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

| | | |
|------------------------------|-----------------|----------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/059,578 | ERIKSSON, KLAS GORAN |
| | Examiner | Art Unit |
| | Roy M. Punnoose | 2877 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on _____.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 31-105 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) 31-105 is/are rejected.
 7) Claim(s) ____ is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) The translation of the foreign language provisional application has been received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____.
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) Other: _____

DETAILED ACTION

Response to Amendment

1. Receipt of amendment letter on October 23, 2003 is acknowledged. **Applicant's arguments filed October 23, 2003 have been fully considered but they are not persuasive.**

The Examiner's response to applicant's argument is detailed below.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action, and the amendment to the claims has necessitated the Examiner to make this office action **FINAL**.

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 31-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santschi et al (US_5,760,911) in view of Carr et al (US_3714,444).

A) Claims 31-55 are rejected because, Santschi et al (Santschi hereinafter) discloses an apparatus for use in monitoring particles in a fluid flow, comprising:
a duct 20 for receiving the fluid flow,

light generating means 16 adjacent the duct for transmitting light into the fluid flow via a first at least partially light-transmissive part of the duct 20;

light-responsive detection means 18 adjacent a second at least partially light-transmissive part of the duct for receiving light from the light generating means 16 which has passed through the fluid flow;

processing means 10 for location remotely from said duct; and means for coupling the processing means with the detection means 18, the processing means 10 being adapted for processing signals therefrom to provide data relating to particles in the fluid flow (see col.4, line36- col.5, line 47), wherein said duct comprises a pipe section provided with means for mounting it in a run of pipework (see Figure 1), wherein said first and second at least partially light-transmissive parts comprise first and second windows in a wall of the duct, and, said first and second at least partially light-transmissive parts are diametrically opposite each other. However, Santschi does not disclose the use of a non-stick coating on the surface of light-transmissive parts to prevent any contaminant or debris from sticking to the light-transmissive parts so that accurate measurement or monitoring of particles in a liquid flow can be made.

B). Carr et al (Carr hereinafter) discloses an apparatus for measuring concentration of suspended solids in a liquid comprising non-stick coating on light-transmissive parts (see col.3, lines 40-60) to prevent any contaminant or debris from sticking to the light-transmissive parts so that accurate measurement or monitoring of particles in a liquid flow can be made.

C). In view of the teaching of Carr, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a non-stick coating into Santschi's

apparatus in order to prevent any contaminant or debris from sticking to the light-transmissive parts so that accurate measurement or monitoring of particles in a liquid flow can be made.

Accordingly, such incorporation would have constituted an alternative means/obvious engineering expedience for one of ordinary skill in the art at the time the invention was made.

4. Claims 56-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santschi et al (US_5,760,911) in view of Carr et al (US_3714,444) and further in view of Weaver (EP 0 337 108).

A). Santschi and Carr teaches all claim limitations except for the means for flushing away deposits from light-transmissive parts so that accurate measurement or monitoring of particles in a liquid flow can be made.

B). Weaver teaches a means 31 (see Figure 1) for flushing away deposits from light-transmissive parts so that accurate measurement or monitoring of particles in a liquid flow can be made.

C). In view of the teaching of Weaver, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a flushing means into Santschi's apparatus in order to flush away any contaminant or debris from sticking to the light-transmissive parts so that accurate measurement or monitoring of particles in a liquid flow can be made. Accordingly, such incorporation would have constituted an alternative means/obvious engineering expedience for one of ordinary skill in the art at the time the invention was made.

5. Claims 81-105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santschi et al (US_5,760,911) in view of Carr et al (US_3714,444) and Weaver (EP 0 337 108) and further in view of prior art.

A). Santschi, Carr and Weaver teaches all claim limitations except for the uneven surface of light-transmissive parts so that accurate measurement or monitoring of particles in a liquid flow can be made.

B). Applicant discloses in the specification that the uneven surface or lotus effect is prior art and is used to prevent deposits from forming on light-transmissive parts so that accurate measurement or monitoring of particles in a liquid flow can be made.

C). In view of the prior art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the uneven surface formed on light-transmissive parts into Santschi's apparatus in order to prevent any contaminant or debris from sticking to the light-transmissive parts so that accurate measurement or monitoring of particles in a liquid flow can be made. Accordingly, such incorporation would have constituted an alternative means/obvious engineering expedience for one of ordinary skill in the art at the time the invention was made.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Examiner Roy M. Punnoose** whose telephone number is **571-272-2427**. The examiner can normally be reached on 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the applicant can reach his **Supervisory Patent Examiner, Frank G. Font**, at 571-272-2415.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a **general nature** or relating to the status of this application should be directed to the Group receptionist whose telephone number is **(571) 272-1585**.

Roy M. Punnoose
Patent Examiner
Art Unit 2877
January 25, 2004

T. Nguyen
For Mr. Frank G. Font
Supervisory Patent Examiner